

Arco Set to Begin High-Cost Production In Kuparuk Oil Field on the North Slope

By STEVE FRAZIER

Staff Reporter of THE WALL STREET JOURNAL

LOS ANGELES — Atlantic Richfield Co.'s Kuparuk River oil field on Alaska's North Slope, which lay untapped for 10 years after its discovery because it was too expensive to develop, is finally scheduled to begin production today.

As operator and majority owner of the Kuparuk field, Arco will get a healthy, if unspectacular, boost from the new production. Arco's development of Kuparuk, oil analysts say, illustrates the sort of steady gains many oil companies will find possible only through high-cost projects, as easier-to-develop reserves are played out.

"The nature of this field isn't as attractive or efficient as Prudhoe Bay (also on the North Slope), but it's more typical of the oil we'll be relying on from now on," said Thomas Petrie, a First Boston Corp. oil analyst. Without higher energy prices, he added, "This oil would have fallen in the category as technically recoverable but not economic."

Arco's 55,000-barrel-a-day share of Kuparuk's initial 80,000 barrels of daily production will represent less than 10% of Arco's 1982 domestic oil production. But that's enough to increase its domestic production to about 575,000 barrels daily from 535,000 barrels in 1981. Without the Kuparuk production, Arco's U.S. oil flow would have declined to 520,000 barrels or so in 1982 as older reservoirs become less productive.

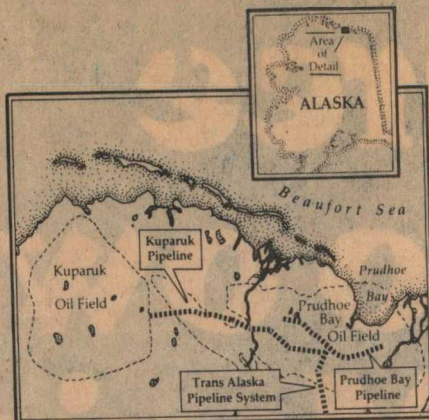
"This is an important increment," said Sanford Margoshes, an analyst for Bache Halsey Stuart Shields Inc., "because Atlantic Richfield, like every other oil company, is running very fast just to stand still in terms of domestic oil production."

Arco also expects that Kuparuk will generate \$140 million to \$150 million in profits in 1982 and make it possible for the company to supply its refineries' needs for crude oil with Arco's own production. Arco executives say the company eventually will be able to claim a total of about 750 million barrels of recoverable oil as its share of reserves from the Kuparuk field if secondary recovery projects perform as expected. So far Arco has recorded 208 million barrels of reserves from Kuparuk.

For years after Kuparuk's discovery in 1969, it was overshadowed by the far larger Prudhoe Bay oil field, 40 miles to the east. "Kuparuk never appeared economic," said Robert Wycoff, executive vice president in charge of oil and gas for Arco. "It was much more expensive to develop (than Prudhoe Bay)."

Kuparuk suffered by comparison largely because its oil is spread out on a far thinner layer than at Prudhoe Bay—a 50-foot thickness of oil-bearing sands, compared with 450- to 500-foot thickness at Prudhoe Bay. That means wells are less productive, and more are required to extract a given amount of oil.

Arco expects 800 wells will be needed to fully develop Kuparuk's estimated total of 1.2 billion to 1.5 billion barrels of recoverable oil, compared with the same number of wells needed to extract Prudhoe Bay's 9.8 billion barrels of oil and gas liquids. About



\$6 billion will be spent by 1986 to bring Kuparuk to peak production of up to 250,000 barrels a day; a similar amount has been spent so far—although in less inflated dollars—at Prudhoe Bay, where production is about 1.5 million barrels daily.

After the Trans Alaska Pipeline System had been built to service Prudhoe Bay, Kuparuk became "marginally economic" and justified Arco's plans to start developing one part of the field in 1979, Mr. Wycoff said. Then oil prices exploded after the Iranian revolution, and development plans for Kuparuk were expanded. The development got another crucial boost when Congress exempted Kuparuk production from the "windfall profits" tax on oil revenue. The higher cost of field development at Kuparuk compared with Prudhoe Bay "is just about offset by the lack of a windfall profits tax," Claude Goldsmith, Arco's senior vice president of finance, said.

Arco remained the sole developer of Kuparuk until this July, when other interest holders in the area signed a letter of intent for the expanded development plans. A final agreement is expected in the coming weeks, after a dispute over the exact shares of interest in the production is resolved. Arco has an 80% interest in the initial production; the interest will drop during later stages so that Arco has "just under" a 60% interest over the life of the field, a spokesman said. Standard Oil Co. of Ohio said it will have a 9.5% interest in Kuparuk, and British Petroleum Co. is claiming 28% of Kuparuk. BP controls a 53% interest in Sohio. Other interest owners have much smaller amounts.

By the end of this year, \$460 million will have been spent to develop Kuparuk, which includes a 26-mile, 16-inch diameter pipeline to connect the field with the Alaska pipeline; 40 development wells, and processing and operations facilities. Arco expects \$8 billion to be spent developing Kuparuk in the next 10 years, \$4.5 billion of which Arco will supply.

Although world prices have softened some this year because of an oil glut, Mr. Wycoff said the Kuparuk development is profitable based on the larger jump in oil prices in 1979-80. But he said the Kuparuk field has a "feather edge" that is more expensive to exploit than thicker portions of the field, so development may be contracted or expanded based on tax levels and future price moves.

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